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# TRAINING IMPACT ASSESSMENT – REPORT 4

ON-JOB FOLLOW-UP/SIX-MONTH

*WATER TREATMENT - LEVEL 1  
PILOT - ZAI WATER TREATMENT PLANT*

**USAID OPERATIONS AND MAINTENANCE TRAINING PROJECT**

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This document was produced for review by the United States Agency for International Development. It was prepared by Chemonics International Inc.

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USAID OPERATIONS AND MAINTENANCE TRAINING PROJECT

**Contract No. EPP-I-00-04-00020-00**

**Prepared by Chemonics International Inc.**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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# **Jordan Water and Wastewater Operator Certification and Training Program**

## **Training Impact Assessment (TIA) Post-Training On-Job Follow-up/Six-month Water Treatment Level 1 – Zai Water Treatment Plant**

### **Assessment Description**

#### Background

In May 2008, USAID/Amman implemented the 52-month Jordan Operations and Maintenance Training (OMT) Project with the goal of improving the operation and maintenance (O&M) of water and wastewater treatment plants in Jordan to ensure efficient operation, dependable service and sustainability of the infrastructure. The central objective of OMT is to establish a mandatory operator certification requirement in Jordan including a highly defined career path stipulating detailed need-to-know competencies. This competency hierarchy is supported by a standardized training and testing program customized from successful US models for the particular needs in Jordan.

All operator training curricula and tests go through a piloting process. The results of the process are used to further improve the certification and training program. In addition, as a part of the pilot implementation of the operator training program, the OMT Project designed and developed a Training Impact Assessment (TIA) approach and methodology to evaluate the impact of the training on the O&M performance at the facilities where the pilot training was taking place. This approach and methodology will be refined over the duration of the OMT project and will be turned over to the Board of Certification for their continued use to measure the effectiveness of the program on improved water and wastewater facility O&M and to make improvements in the program as indicated.

TIA Report 4 - Post-Training On-Job Follow-up/Six-month provides an analysis of the first set of TIA conducted back on the job after the completion of training as shown in the table below.

<b>Course</b>	<b>Level</b>	<b>Pilot Site</b>	<b>TIA Type</b>	<b>Date</b>
Water Treatment	1	Miyahuna Water Company – Zai Water Treatment Plant	Pre-Training Post-Training On Job	Dec 2010 Jan 2011 Sept 2011

#### Purpose

The first round of post-training TIAs conducted on-job six months after training are intended to collect both quantitative and qualitative data to compare and identify any change in O&M performance as measured against the pre-training baseline established for the designated Jordanian treatment facilities. The findings of this assessment will be used to further improve the operator certification and training program and to assist managers in improving O&M performance at their facilities.

The TIA methodology detailing the six-month impact review has been fully described in TIA Report 3 which also includes the questionnaires used for this follow-up assessment. This report has been further streamlined by excluding the complete sets of raw data responses from operators and supervisors that appeared in previous reports. The raw data is summarized in this version of the TIA as in the preceding TIA reports and is available upon request if required.

## Summary of Results

### *Miyahuna Water Company/Zai Plant; Water Operator Level 1*

#### Quantitative Performance Indicators – Pilot and Six-Month

Performance data is collected and reported annually at the Miyahuna Water Company for the Zai WTP. In this section, performance data is summarized by comparing the results reported for 2011 with the 2010 baseline data collected and previously reported in TIA Report 2. See Annex A.1 for full results.

Summary of 2011 Results:

#### **Miyahuna / Zai Water Treatment Plant (WTP) Year 2010 - 2011**

#	Indicator	2010 Baseline	2011	Notes
1	Quality of Water treated – Non-compliance Citations	0	0	
2	Major Unplanned Shut-downs	0	0	
3	Emergency Actions	0	0	
4	Accident Reports	0	0	
5	Operating Costs	17,231,125.00	20,215,855.0*	
6	Maintenance Costs	214,503.00	117,487.0	
7	Water Quality (Lab) a) number of external lab tests conducted**	365	365	<i>Approximately</i>
	b) percentage of results of non-compliance with the standard	0%	0%	

\* The increase of operating cost is caused by the increase in Water produced / pumped from Zai WTP to Amman, from (59 million m3) in year 2010 to (61.2 million m3) in year 2011.

\*\* Measured by external labs: Water Authority (WAJ), Ministry of Health (MoH), Royal Scientific Association (RSA), etc.

Reduction in maintenance costs - The Zai facility has historically been very well operated, with no accidents or non-compliance citations noted prior to the advent of the operator certification and training program. As compared with 2010 baseline data, a nearly 50% reduction in maintenance costs has been reported since the beginning of the operator certification and training program 2011. This may indicate the improved efficiency with which this program helps operators to perform their work.

Operating costs – Zai had a significant increase in the quantity of water treated and pumped in 2011. Operating costs in 2011 still maintained relative parity with the reported 2010 baseline.

Treated water non-compliance citations and accident reports – For the 2010 baseline, Zai reported perfect records (zero occurrences) for these indicators. In 2011, Zai reported that this level of performance was maintained.

## Qualitative Measures

### **Survey Results - Trainee**

#### 1. Relevance of Training

- Trainees reconfirmed by 100% agreement that they remain interested in learning and improving their job skills. After 6 months, trainees were distributed across the range regarding study of topics related directly to their current job. However, 94% reconfirmed their agreement in wanting a complete knowledge of the field.

#### 2. Language of Instruction

- Trainees continued to show a strong preference (94%) to study in Arabic.

#### 3. Knowledge/Understanding

- Trainees continued to express agreement with 73% rating indicating an increase in knowledge of new international developments and technologies and 100% agreement that they are now more aware of safety equipment and safe O&M procedures.

#### 4. Attitude/Confidence; Self Esteem

- After 6 months, trainees continued to report strong agreement with 93% indicating confidence to apply new knowledge on the job. With regard to pursuing promotion, trainee responses indicated a wide range of opinions with a relatively flat distribution. 97% continued to report that the training gave them the confidence to pursue employment elsewhere.
- Regarding awareness of family and friends in the importance of their job, responses increased from 69% at the end of training to 87% after 6 months. This may indicate that the training is making the operators more confident and knowledgeable to talk about their work.

#### 5. Skills/Technical; Management

- All key measures of technical and managerial skills increased after 6 months. 100% of trainees indicated that the training enabled them to do their job better. 86% indicated that training helped them solve work problems, and, 80% reported that training improved the ways they organize people and tasks.
- This set of responses shows that the effects of the training are not short-lived and that trainees continue to strongly agree that the training is enabling them to perform better after 6 months back on the job.

#### 6. Impact

- This set of responses points out some critical issues that require follow-up attention at the Zai Plant. After 6 months back on the job, approximately half (47%) of trainees do NOT agree that they are receiving adequate support from their supervisors in the application of new knowledge and skills. This is down from 71% who expected strong supervisory support immediately after training. A slight decline was also registered regarding the monitoring of their performance and impact by their supervisor.
- However, after 6 months, 93% agreed that they can see improvements in their performance as a result of the training. This is another strong indication that the training can have long-term positive effects on O&M at the Zai plant.

## Survey Results - Supervisor

### 1. Relevance of Training

- After 6 months back on the job, supervisors maintained their 100% agreement regarding the high level of staff interest in learning and improving job skills. Opinion with respect to supervisors wanting staff to receive a complete knowledge of the field deviated slightly from results immediately after training with 60% still in agreement and 40% neutral.

### 2. Language of Instruction

- 100% of supervisors continue to support instruction in Arabic.

### 3. Knowledge/Understanding

- Results from supervisors after 6 months regarding all four criteria measured showed a remarkable increase with 100% agreement across the board.
- This is a significant change emphasizing that the increase in staff knowledge after 6 months on the job is clearly obvious to supervisors.
- This is the only category of this assessment that received unanimous strong agreement on all factors and is highly indicative that the training content has been properly planned and delivered.

### 4. Attitude/Confidence; Self Esteem

- After 6 months, 100% of supervisors could see that the training is giving staff the confidence to apply new knowledge and skills. Supervisor opinion regarding trainee interest in promotion increased to 80% agreement.
- Supervisors maintained their opinion regarding confidence of staff to pursue employment elsewhere with 60% agreement and 40% neutral. Responses regarding whether the family and friends of their staff are aware of the importance of their work remained flat with opinions distributed relatively evenly across ratings.
- After 6 months, supervisors can still see the elevated confidence and positive attitude of trainees confirming that the training is delivering on the long-term behavioral as well as the knowledge objectives of the program.

### 5. Skills/Technical; Management

- After 6 months back on the job, supervisor responses remained identical to those indicated immediately after the training with agreement on factors ranging from 80% to 100%.
- These responses confirm that the technical, problem-solving and organizational skills acquired during training are evident in the workplace over the long term.

### 6. Impact

- Six months after training, the results on the survey generally matched expectations from the post-training. 100% of supervisors reported supporting their staff in the application of new learning on the job as well as monitor their performance. 80% of supervisors reported that they are monitoring performance.

- Most importantly, 80% of supervisors could see improvements in individual and work unit performance as a result of training and support. These are exceptional results indicting that supervisors are strongly in favor of the training and are able to recognize performance improvements attributable to the training.
- It should be noted that trainees do not totally agree that they are getting strong support from their supervisors in the application of new knowledge and skills. This discrepancy should be pointed out to the supervisors and trainees at the Zai plant to foster greater understanding between them and contribute to a higher level of performance impact.



## Annex A: Miyahuna Water Company; Zai Water Treatment Plant

### A.1 Quantitative Performance Indicators – Annual Performance

### A.2 Trainee Bio-data

### A.3 Summary of Survey Responses to Post-Training On-Job Follow-up/Six-Month - Trainee

### A.4 Summary of Survey Responses to Post-Training On-Job Follow-up/Six-Month - Supervisor

## A.1 Quantitative Performance Indicators – Annual Performance

### Miyahuna / Zai water Treatment Plant (WTP) - Pilot

Baseline performance data – 2010

Annual Performance Data - 2011

#	Indicator	2010 Baseline	2011	Notes
1	Quality of Water treated – Non-compliance Citations	0	0	
2	Major Unplanned Shut-downs	0	0	
3	Emergency Actions	0	0	
4	Accident Reports	0	0	
5	Operating Costs	17,231,125.00	20,215,855.0*	
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7	Water Quality (Lab) a) number of external lab tests conducted**	365	365	<i>Approximately</i>
	b) percentage of results of non-compliance with the standard	0%	0%	

\* The increase of operating cost is caused by the increase in Water produced / pumped from Zai WTP to Amman, from (59 million m3) in year 2010 to (61.2 million m3) in year 2011.

\*\* Measured by external labs: Water Authority (WAJ), Ministry of Health (MoH), Royal Scientific Association (RSA), etc.

## A.2 Zai/Miyahuna Trainee Bio-data

Miyahuna - Zai Water Treatment Operation Mangers/Supervisors Information								
No.	Name	Position	Department/Section/Plant	Education		Experience (Years)		Report to
				Degree	Major Subject	General	Related	
1	Eng. Ali Mahmoud Al-Hamed Al-Qura'an	Operations and Maintenance Manager	Production and Quality Directorate	Bachelor	Chemical Engineering	24	24	Eng. Haitham El Kilani
2	Eng. Ahmad Musa Moh'd Al-Hiaree	Operations Section Head	Production and Quality Directorate	Bachelor	Chemical Engineering	20	12	Eng. Ali Al-Qura'n
3	Eng. Ghasan Adnan Abd Alrahman Al-Salhi	Row Water Secton Head	Production and Quality Directorate	Bachelor	Chemical Engineering	16	8	Eng. Ali Al-Qura'n
4	Ahmad Khalil Moh'd Mansour	Plant Sub Section Head /Rusaifa	Production and Quality Directorate	Diploma (a)	Chemical Engineering	24	10	Eng. Ali Al-Qura'n
5	Hani Omar Madeen Bstas	Plant Sub Section Head /Wadi Al Seer	Production and Quality Directorate	High School	Industrial	27	27	Eng. Ali Al-Qura'n
Miyahuna - Zai Water Treatment Operators Information								
No.	Name	Position	Department/Section/Plant	Education		Experience (Years)		Report to
				Degree	Major Subject	General	Related	
1	Eng. Tarek Ziad Sha'ban	Operation Engineer	Production and Quality Directorate	Bachelor	Chemical Engineering	16	16	Eng. Ahmad Musa Moh'd Al-Hiaree
2	Eng. Mohammad Al-Goweiri	Operation Engineer	Production and Quality Directorate	Bachelor	Chemical Engineering	24	24	Eng. Ahmad Musa Moh'd Al-Hiaree
3	Mr. Hisham AL-Azzeh	WW Operator	Production and Quality Directorate	Vocational Diploma (b)	Electrical	28	28	Eng. Ahmad Musa Moh'd Al-Hiaree
4	Mr. Hamza Tawfiq Qadri	WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	3	3	Eng. Ahmad Musa Moh'd Al-Hiaree
5	Mr. Saleh Jadallah Mahmoud	WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	3	3	Eng. Ahmad Musa Moh'd Al-Hiaree
6	Mr. Mamdouh Ribhi Al-Owewi	WW Operator	Production and Quality Directorate	Diploma (a)	Electrical	18	18	Eng. Ahmad Musa Moh'd Al-Hiaree
7	Mr. Mustafa Ibrahim Katou'ah	WW Operator	Production and Quality Directorate	Vocational Diploma (b)	Mechanical	22	22	Eng. Ahmad Musa Moh'd Al-Hiaree
8	Mr. Ala'a Aref Khashman	WW Operator	Production and Quality Directorate	Vocational Diploma (b)	Mechanical	20	20	Eng. Ahmad Musa Moh'd Al-Hiaree
9	Mr. Fayez Saleh Arabiat	Assistant Operator	Production and Quality Directorate	Secondary School	Industrial	22	22	Eng. Ahmad Musa Moh'd Al-Hiaree
10	Mr. Adnan Abu Hammour	WW Operator	Production and Quality Directorate	High School	Literature	12	12	Eng. Ahmad Musa Moh'd Al-Hiaree
11	Mr. Amjad Hasan Bawa'neh	Supervisor WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	18	18	Eng. Ahmad Musa Moh'd Al-Hiaree
12	Mr. Nabil Mustafa Al-Shaikh	WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	3	3	Eng. Ahmad Musa Moh'd Al-Hiaree
13	Mr. Mohammad Ismail Abdullah	WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	5	2	Eng. Ahmad Musa Moh'd Al-Hiaree
14	Mr. Nizar Omar Naghawai	WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	6	6	Eng. Ahmad Musa Moh'd Al-Hiaree
15	Mr. Kamal Khalil Masalha	Operator/Sub-Section Head	Production and Quality Directorate	Diploma (a)	Mechanical	15	15	Eng. Ghasan Adnan Abd Alrahman Al-Salhi
16	Mr. Ahmad Farouq Al-Omari	WW Operator	Production and Quality Directorate	Diploma (a)	Petrochemical	3	3	Eng. Ghasan Adnan Abd Alrahman Al-Salhi
17	Mr. Naim Abdel Majeed Alnaimat	WW Operator	Production and Quality Directorate	Diploma (a)	Mechanical	3	3	Eng. Ghasan Adnan Abd Alrahman Al-Salhi
(a)	Community College							
(b)	Less than High School							
(c)	An engineer or B.S. holder needs 2 years of <b>Level 2 certified</b> working experience to go to level 3							
(d)	A Community College-Science graduate needs 1 year of <b>Level 1 certified</b> working experience to go to level 2							
(e)	Other Community College graduates need 1 year of <b>Level 1 certified</b> working experience to go to level 2							



### A.3 Zai - Training Impact Assessment Survey – Post-Training/Trainee Response Summary

#### Survey

#### Summary of Responses

	<i>End-of-Training</i>	<i>Six-Month Follow-up</i>
<b>1. Relevance of Training</b> 1.1 I am interested in learning and improving my job skills. 1.2 I only want to study topics that are directly related to my current job. 1.3 I want a complete knowledge of my field regardless of the current relevance.	Trainees confirmed their pre-training opinions. After training they continue to see the value in receiving training in all aspects of operator responsibilities. A total of 100% agreed or strongly agreed that they want a complete knowledge of the field regardless of current position.	There was no change in trainee responses. They reconfirmed by 100% agreement that they remain interested in learning and improving their job skills. After 6 months, trainees were distributed across the range regarding study of topics related directly to their current job. However, 94% reconfirmed their agreement in wanting a complete knowledge of the field.  <i>Note:</i> Data includes responses from two (2) trainees who failed the final exam.
<b>2. Language of Instruction</b> 2.1 I prefer to study my field in Arabic. 2.2 I prefer to study my field in English. 2.3 I have no language preference.	Trainees showed a unanimous 100% preference to study in Arabic.	Trainees continued to show a strong preference (94%) to study in Arabic.
<b>3. Knowledge/Understanding</b> 3.1 I am now more aware of new technologies that could improve my performance. 3.2 The training increased my knowledge of new international developments and new technologies in my field. 3.3 I now better understand the importance of safe drinking water and/or pollution control laws/regulations to my job. 3.4 I am now more aware of safety equipment and safe O&M procedures in my field.	100% of trainees agreed/strongly agreed that as a result of the training they have a greater awareness of new technologies that could improve their job performance and international developments in their field. 97% agreed/strongly agreed that they now have better knowledge of safety equipment and procedures.	Trainees continued to express agreement on all four (4) measures with responses ranging from 73% to 100%. The low 73% rating was registered for increase in knowledge of new international developments and technologies. 100% agreed that they are now more aware of safety equipment and safe O&M procedures.
<b>4. Attitude/Confidence; Self Esteem</b> 4.1 The training is giving me confidence to apply new knowledge to my job. 4.2 The training is giving me confidence to pursue promotion and career objectives. 4.3 The training is giving me confidence to pursue job opportunities elsewhere. 4.4 My family, friends and neighbors are not aware of the importance of my job to protect the public health by providing safe drinking water and/or the importance of controlling pollution to protect the environment.	Post-training responses regarding attitudes showed that the training fulfilled expectations as measured by pre-training survey. Post-training responses were almost identical to pre-training results. 100% of trainees either agreed/strongly agreed that the training gave them the confidence to apply their new knowledge to the job. 100% also reported that the training gave them the confidence to pursue employment elsewhere. 69% disagreed that family and friends are not aware of the importance of their job.	After 6 months, trainees continued to report strong agreement with 93% indicating confidence to apply new knowledge on the job.  With regard to pursuing promotion, trainee responses indicated a wide range of opinions with a relatively flat distribution. 97% continued to report that the training gave them the confidence to pursue employment elsewhere.  Regarding awareness of family and friends in the importance of their job, responses increased from 69% at the end of training to 87% after 6 months. This may indicate that the training is making the operators more confident and knowledgeable to talk about their work.
<b>5. Skills/Technical; Management</b> 5.1 I acquired new technical skills that enable me to do my job better. 5.2 I acquired new ways to solve work problems. 5.3 I learned new ways to organize people and tasks.	94% of trainees indicated that the training would enable them to do their job better. 86% indicated that training would help them solve work problems while 77% reported that training would improve the ways they organize people and tasks.	Key responses increased after 6 months. 100% of trainees indicated that the training enabled them to do their job better. 86% indicated that training helped them solve work problems while 80% reported that training improved the ways they organize people and tasks.  This set of responses shows that the effects of the training are not short-lived and that trainees continue to strongly agree that the training is enabling them to perform better after 6 months back on the job.
<b>6. Impact</b> 6.1 I am receiving the support of my supervisor and the utility in the application of new knowledge and skills on the job. 6.2 My supervisor is monitoring my application of new knowledge and skills to determine impact on my performance and the performance of my work unit. 6.3 I can see improvements in my performance and the performance of my work unit as a result of the training.	After training, the majority of trainees (71%) continued to expect to receive the support of their supervisor and utility in the application of new knowledge and skills. 76% expected their supervisor to closely monitor their performance after training to assess impact. Respondents were neutral regarding improvements in their performance and that of their work unit as a result of training compared with 96% positive in pre-training.	This set of responses points out some critical issues that require follow-up attention at the Zai Plant.  After 6 months back on the job, approximately half (47%) of trainees do NOT agree that they are receiving adequate support from their supervisors in the application of new knowledge and skills. This is down from 71% who expect support immediately after training. A slight decline

		<p>was also registered regarding the monitoring of their performance and impact by their supervisor.</p> <p>However, after 6 months, 93% agreed that they can see improvements in their performance as a result of the training. This is another strong indication that the training can have long-term positive effects on O&amp;M at the Zai plant.</p>
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## A.4 Zai - Training Impact Assessment Survey – Post-Training/Supervisor; Manager Response Summary

### Survey

### Summary of Responses

	End-of-Training	Six-Month Follow-up
<b>1. Relevance of Training</b> 1. My staff is interested in learning and improving their job skills. 1.2 I only want staff to study topics that are directly related to their current job. 1.3 I want staff to receive complete knowledge of the field regardless of the current relevance.	Supervisor responses increased from 80% on the pre-training survey to 100% on the post-training regarding level of staff interest in training. 80% wanted their staff to get a complete operator training program regardless of the current relevance.	After 6 months back on the job, supervisors maintained the 100% agreement established immediately after training with regard to level of staff interest in learning and improving job skills. Opinion with respect to supervisors wanting staff to receive a complete knowledge of the field deviated slightly with 60% still in agreement and 40% neutral.
<b>2. Language of Instruction</b> 2.1 I prefer staff to study in Arabic. 2.2 I prefer staff to study in English. 2.3 I have no language preference.	Supervisors were unanimous (100%) in their preference that staff studies in Arabic.	100% of supervisors continue to support instruction in Arabic.
<b>3. Knowledge/Understanding</b> 3.1 My staff is now better aware of the new technologies that could improve their performance. 3.2 My staff is now better aware of safety equipment and safe O&M procedures in their fields. 3.3 The training has increased staff knowledge of new international developments and new technologies in their field. 3.4 My staff now better understand the importance of safe drinking water and/or pollution control laws/regulations to their jobs.	Where only 60% of supervisors thought their staff had knowledge of new technologies that could improve performance on the pre-training survey, 80% agreed on the post-training survey that staff now had this knowledge. 80% acknowledged better awareness of safety after training and 100% indicated increased knowledge of new technologies. 80% of supervisors agreed that staff had improved knowledge water quality and pollution standards where the majority had the opposite opinion on the pre-training survey.	Results from supervisors after 6 months regarding all four criteria measured showed a remarkable increase with 100% agreement across the board.  This is a significant change emphasizing that supervisors can see that staff knowledge after 6 months on the job is clearly obvious to them.  This is the only category of this assessment that received unanimous strong agreement on all factors and is highly indicative that the training content has been properly planned and delivered.
<b>4. Attitude/Confidence</b> 4.1 The training is giving my staff confidence to apply new knowledge on their job.	100% expect the training to give staff the confidence to apply new knowledge and skills however they do not believe as strongly regarding promotion (60%).	After 6 months, 100% of supervisors continued to see that the training gave staff the confidence to apply new knowledge and skills.



<p>4.2 The training is giving my staff confidence to pursue promotion and career objectives.</p> <p>4.3 The training is giving my staff confidence to pursue job opportunities elsewhere.</p> <p>4.4 In my opinion, the families, friends and neighbors of my staff are not aware of the importance of the jobs my staff do to protect the public health by providing safe drinking water and/or the importance of controlling pollution to protect the environment.</p>	<p>A slim majority (60%) expect staff to have the confidence to pursue employment elsewhere. 60% responded that the family and friends of their staff are not aware of the importance of their work.</p>	<p>Their opinion regarding trainee interest in promotion increased to 80% agreement.</p> <p>Supervisor maintained their opinion regarding confidence of staff to pursue employment elsewhere with 60% agreement and 40% neutral. Responses regarding whether the family and friends of their staff are aware of the importance of their work remained flat with opinions distributed relatively evenly across ratings.</p> <p>After 6 months supervisors can still see the elevated confidence and positive attitude of trainees, confirming that the training is delivering on the long-term behavioral as well as the knowledge objectives of the program.</p>
<p><b>5. Skills/Technical; Management</b></p> <p>5.1 My staff is acquiring new technical skills that enable them to do their job better.</p> <p>5.2 My staff is acquiring new ways to solve work problems.</p> <p>5.3 My staff is learning new ways to organize people and tasks.</p>	<p>100% of supervisors confirmed that staff acquired new knowledge and skills that will improve their job performance and their problem solving skills. 80% expected training to help staff to organize people and tasks.</p>	<p>After 6 months back on the job, supervisor responses remained identical to those indicated immediately after the training with 100% agreement on factors 5.1 and 5.2 while 5.3 was rated at 80% agreement.</p> <p>Again, these responses are confirming the technical, problem-solving and organizational skills acquired during training are evident in the workplace over the long term.</p>
<p><b>6. Impact</b></p> <p>6.1 I am supporting staff in applying new knowledge and skills on the job.</p> <p>6.2 I am monitoring the performance of staff after training to assess impact.</p> <p>6.3 I can see improvements in staff and work unit performance as a result of training</p>	<p>Results on the post-training survey generally matched expectations from the pre-training. 100% of supervisors reported supporting their staff in the application of new learning on the job as well as monitor their performance.</p>	<p>Again, after 6 months, the results on the survey generally matched expectations from the post-training. 100% of supervisors reported supporting their staff in the application of new learning on the job as well as monitor their performance.</p>

	<p>80% of supervisors reported on the post-training survey that they expect to see improvements in individual and work unit performance as a result of training and support.</p>	<p>80% of supervisors reported that they are monitoring performance.</p> <p>Most importantly, 80% could see improvements in individual and work unit performance as a result of training and support.</p> <p>These are exceptional results indicting that supervisors are strongly in favor of the training and are able to recognize performance improvements attributable to the training.</p> <p>It should be noted that trainees do not totally agree that they are getting strong support from their supervisors in the application of new knowledge and skills. This discrepancy should be pointed out to the supervisors and trainees at the Zai plant to foster greater understanding between them and contribute to a higher level of performance impact.</p>
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